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September 15, 1999  
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COMMISSION  
The Portals  
445 12<sup>th</sup> Street S.W.  
Washington, DC 20554

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RE: FCC DOCKET MM 99-25

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Dear Commissioners and Commission Staff:

Enclosed are 15 copies, PLUS an Original, of REPLY COMMENTS, by THE AMHERST ALLIANCE, in Docket MM 99-25 (Low Power Radio Service). The same Reply Comments have already been filed ELECTRONICALLY by John Robert Benjamin, Communications Director of THE AMHERST ALLIANCE.

Let me add, based on past experience, that the Chart in the Appendix may be more readable in the hard copy than they are in the electronic copy.

Sincerely,



William C. Doerner

Amherst Coordinator, Gulf & Mid-Continent Region  
Amherst Communications Director EMERITUS

For THE AMHERST ALLIANCE

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For  
**REPLY COMMENTS OF THE AMHERST ALLIANCE**  
In  
**FCC DOCKET NO. MM 99-25**

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In The Matter Of:	)	Docket No. MM 99-25
	)	
Creation Of A	)	Docket No. RM-9208;
Low Power Radio Service	)	Docket No. RM-9242

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REPLY COMMENTS OF THE AMHERST ALLIANCE

Founded on September 19, 1998 -- in Amherst, Massachusetts -- THE AMHERST ALLIANCE is a small but nationwide citizens' advocacy group. Amherst advocates Low Power Radio, among other steps to increase mass media diversity. It is organized and mobilized mainly over The Net.

These Reply Comments are primarily a response to the Written Comments filed by the National Association of Broadcasters (NAB). In addition, however, these Reply Comments address some of the points raised by National Public Radio (NPR) and the Corporation for Public Broadcasting (CPB).

Also, we endorse yet again the JOINT STATEMENT ON MICRO-RADIO of Rogue Communication, Amherst, CDC, MEC and many others. This Statement was submitted to on July 31, 1999, with Supplemental filings on August 2 and 23.

The recommendations in this Joint Statement reflect points of consensus among 90% or more of the Low Power Radio movement.

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## **SO-CALLED "ALTERNATIVES" TO LOW POWER RADIO**

It has been alleged that Low Power Radio is not needed because "alternatives" -- notably, Internet audio -- are readily available.

Frankly, IF alternatives to Low Power Radio were REALLY readily available, most of the aspiring broadcasters in the Low Power Radio movement would not have invested years of effort, many dollars and countless words in trying to change the FCC's mind!!

We incorporate by reference a document entitled "A Response To Senator McCain". This document, addressing several assertions made by the Senator in his 1999 speech to the NAB, was Appendix 2 of Additional Written Comments of THE AMHERST ALLIANCE (dated May 28, 1999).

The same issues have also been addressed in some of Don Schellhardt's PERSONAL Written Comments to the Commission in FCC Docket RM-9208. Some of these documents were filed in conjunction with the Leggetts of Virginia.

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## **Internet Audio**

We hereby reiterate THE 2 MOST BASIC PROBLEMS with Internet audio as a supposed substitute for Low Power Radio.

FIRST, virtually all Americans have access to radio AND can tune it in virtually anywhere. By contrast, access to the Internet -- while growing rapidly -- is still limited to a distinct minority of Americans, MOST of whom can ONLY "tune it in" from specific (and typically fixed) locations.

Don Schellhardt, Nick and Judith Leggett and THE AMHERST ALLIANCE have all stated On The Record that the current ban on Low Power Radio is unlawful under the Fourteenth Amendment to the U.S. Constitution. Any system which effectively excludes 99.9% of the population -- from 100% of the PUBLICLY OWNED AIRWAVES -- is discriminatory ON ITS FACE. It cannot, by ANY stretch of the imagination, be called "equal protection of the laws".

IF the FCC does not remedy this situation on its own, it will eventually be ordered to do so by a court. Its case in court will be even weaker if the availability of Internet audio has been cited as a justification for the rejection of Low Power Radio. In that case, which we hope will stay hypothetical, the FCC would be shifting vital access opportunities from a UNIVERSALLY AVAILABLE medium to one which is (so far) disproportionately Asian, Caucasian and affluent.

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The United States Department of Commerce, in a SERIES of reports, has documented CLEARLY the existence of huge disparities in Internet access on the basis of BOTH race AND income. The Commerce Department has further reported that, while the absolute number of blacks and Hispanics on the Internet has been rising, the absolute number of Asians and Caucasians has been rising more rapidly. Thus, the gap between races has actually been WIDENING.

IF the Commission rejects Low Power Radio on the grounds that Internet audio is an acceptable substitute, this decision can be presented as a CONSCIOUS embrace of AVOIDABLE discrimination on the basis of BOTH race AND class. Properly presented before a court, this argument could be the final nail in the coffin for the outrageously discriminatory ban on Low Power Radio.

SECOND, some of the same media megacorporations which dominate radio are now starting to buy up major companies which serve The Internet. Unless government acts to limit or prevent such acquisitions, The Internet may in time fall victim to the same kind of oligopoly that has crippled American radio.

The Internet is now a rightly valued "safe haven" for everyday Americans who have something to say -- or play. However, this situation cannot wisely be taken for granted. The same problems which now plague radio could spread to The Net if anti-trust principles are not heeded by decision-makers in government.

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## **Opportunities In OTHER Mass Media**

In OTHER mass media, oligopoly conditions are already established -- or developing rapidly. Were Low Power Radio activists to turn their energies to television (broadcast OR cable), to newspapers and/or to mass market print publishing, they would find again that a handful of corporations control almost all of the "slots". In SOME metropolitan areas, they might even find THE SAME corporation(s) dominant in ALL of the area's mass media -- with several radio stations, up to two major TV stations and one or more large newspapers all owned by the same company.

If a recent trend gains momentum, even the local "alternative" newspaper -- a free, reform-minded and popular "handout", sustained solely by advertisers -- may be acquired by the established newspaper it competes against. This has already happened with the ADVOCATE papers of New England and New York.

Small publishing houses and self-publication MIGHT be viable outlets for activists who are skilled with the WRITTEN word. However, like Internet audio, these media do not typically reach MASS markets. Also, as with Internet audio, those who ARE reached are very unrepresentative of American demographics.

In short, NONE of the other mass media would be friendly territory for "displaced" Low Power Radio activists. Further, ALL of the other mass media, including cable TV, would require substantially more capital for market entry.

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## **ALLEGATIONS OF CONFLICT WITH DIGITALIZATION**

It has been alleged that Low Power Radio activists are hostile to radio Digitalization. It has also been alleged that Low Power Radio technology is inherently incompatible with Digitalization -- or at least with Digitalization of the In Band On Channel (IBOC) variety, which is favored by the NAB.

Amherst can speak to these points from its perspective as a leading nationwide group of Low Power Radio activists, as well as a partner in dialogue (and sometimes multilogue) with OTHER groups of Low Power Radio activists -- AND numerous "unaffiliated" individuals.

We can report that SOME Low Power Radio activists are opposed to Digitalization in any form. OTHER Low Power Radio activists are opposed to Digitalization of the IBOC variety but not to Digitalization of the Eureka 147 variety. A FEW express the reverse preference: that is, IBOC over Eureka 147.

MOST Low Power Radio activists, however, fall into NONE of these groups. MOST view Digitalization as politically inevitable. To make room for it, they are willing to "bend", but they don't want to break. Their PRIMARY goal is persuading the FCC to STRUCTURE DIGITALIZATION IMPLEMENTATION in ways which permit and promote "peaceful co-existence" between Digitalization technology and the Low Power Radio Service.



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A FEW members of the Low Power Radio movement are even attempting to move "ahead of the curve" by exploring the possibilities for DIGITAL Low Power Radio. Some of these pioneers are exploring Light Wave Broadcasting as well. When and if Digitalization is actually put in place by the Commission, the ranks of these technological pioneers will almost certainly increase.

Having said all this, however, IT IS TRUE that few tears would be shed in the Low Power Radio movement if Digitalization were not adopted after all.

IT IS ALSO TRUE that many activists in the Low Power Radio movement, even though they do not OPPOSE Digitalization in principle, nevertheless scratch their heads over the intensity with which the NAB pursues it. Most of America's Low Power Radio activists -- INCLUDING many in Amherst -- see Digitalization of radio as a costly attempt to fix a CONTENT problem with TECHNOLOGY. Better program content (INCLUDING more variety in programming, more local coverage and fewer advertisements) would be a far more effective approach for reviving the sagging levels of listenership. As with High Definition TV, it is the large conventional broadcasters -- NOT the listeners themselves -- who are fixated on attaining greater signal clarity.

As some experts on MOVIE Digitalization have stated, "special effects" are no substitute for good acting and a good plot.

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That is why LISTENERS who speak up are speaking for Low Power Radio.

In short:

Most Low Power Radio activists do not ADVOCATE Digitalization -- BUT they can ACCEPT it ... IF it is structured to "allow room" for a viable, meaningful Low Power Radio Service. They may be skeptical about the cost effectiveness of radio Digitalization -- BUT they recognize an oncoming train when they see it AND they have no wish to hurl themselves between the train and its destination.

Digitalization and Low Power Radio CAN "co-exist" IF conventional broadcasters and Low Power Radio broadcasters are both willing to "bend". In the Low Power Radio movement, most activists are willing to make reasonable accommodations -- SO LONG AS a viable, meaningful Low Power Radio Service is preserved.

### **ALLEGATIONS OF CONFLICT WITH "PUBLIC RADIO"**

Concern has been expressed that Low Power Radio may somehow damage Public Radio -- through interference and/or displacement.

Regarding INTERFERENCE, the evidence suggests it will be an isolated problem, if it surfaces at all. The POSSIBLE need for preventive or corrective action in SOME areas hardly justifies banning Low Power Radio in ALL areas.

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For more information, please see our discussion of the NAB's study, below.

Regarding the possible DISPLACEMENT of NPR stations, MOST aspiring LPRS broadcasters are intent on protecting THEMSELVES from "bumping" -- NOT on "bumping" someone else. SOME in the Low Power Radio movement would allow "bumping", but would limit it solely to the displacement of translators. OTHERS, such as WKJCE Radio and REC Networks, would allow "bumping", but would limit it even further -- to the displacement of SATELLATORS. STILL OTHERS oppose allowing an LPRS station to "bump" ANY station, whether its Status is Primary or Secondary.

We acknowledge that A FEW activists in our movement have advocated authorizing LP-1000 stations -- or whatever stations inhabit the upper Tier of the LPRS -- to "bump" even other LPRS stations. Such views, however, reflect the thinking of only A TINY FRACTION of the Low Power Radio movement.

UNLESS the Commission chooses to ignore the points of CONSENSUS within the Low Power Radio movement -- and listens instead to the miniscule minority of our movement who favor ruthless, wholesale "bumping" -- Public Radio will, AT MOST, be at risk only in the case of its TRANSLATOR stations.

We ask:

Why SHOULDN'T Public Radio's TRANSLATOR stations, or at least its SATELLATOR stations, face the risk of displacement by LOCAL stations?

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Standardized national programming over CORPORATE satellators can now be "bumped" by locally based stations. Should PUBLIC RADIO satellators be protected from local competition simply because they are subsidized??

Let me add this:

If NPR doesn't want its satellators "bumped" by local Low Power Radio, it can turn its satellators back into the locally based stations that most of them used to be.

In our work within the Low Power Radio movement, we have heard horror story after horror story after horror story from former college station personnel who watched student-run, student-programmed stations turn into mere Outposts Of Empire -- where students simply plug in the central feed from Washington.

NPR may call such stations "Affiliates" -- but REAL affiliates would have a local staff, a meaningful measure of local programming and a meaningful measure of operational autonomy. REAL affiliates would be confederated allies -- not simply empty vessels, waiting to be filled with centralized programming from The Seat Of Empire.

Perhaps the risk of displacement is "just what the doctor ordered" to persuade NPR to turn its satellator affiliates back into REAL affiliates. If 50% or more of the NPR satellators' content became local, this change would benefit the very PUBLIC whom Public Radio has been chartered to serve.

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NPR and CPB might well respond to this argument by asserting they have a unique mission of public service, which Low Power Radio cannot duplicate.

We will acknowledge, right here and right now, that PUBLIC RADIO has a mission which is unique AND extremely valuable to the larger society.

We will add, however, that the same can be said of LOW POWER RADIO.

The word "Public" in Public Radio does not automatically convey moral superiority over all possible broadcasting alternatives.

"Public" Radio is FUNDED (in part) by the public, and operates IN THE NAME OF the public, but is not RUN by the public. It is RUN by the government -- and most of it is run by a single large agency of the Federal Government. Low Power Radio offers an opportunity for ACTUAL MEMBERS of the public, including local listeners, to choose the programming they want to hear or play -- without having to rely on NPR intermediaries or similar "middlepeople".

In practice, NPR caters to intellectuals in general and liberal intellectuals in particular. It is funded by 100% of the American people but, in practice, serves mainly the liberal intellectual fraction of the American people. Low Power Radio, by contrast, is likely to span a political and stylistic spectrum as varied as the American people themselves: that is, reactionary, conservative, moderate, liberal, radical -- and totally non-political.

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We stress again that Public Radio DOES have a vital role to play.

Great art, great literature and great ideas have often been "ahead of their time", and/or outside the cultural mainstream, when they first appeared. To cushion promising artists, authors and activists from rejection by a shortsighted marketplace, patrons -- institutional and/or individual -- have long subsidized works that would not have made a good investment (at the time). NPR stands in this tradition by cushioning the work of modern intellectuals -- although a case can clearly be made for including more participation by intellectuals from the Right, the FAR Left and the Center. A case can also be made for providing more entertainment for artistic "niche markets", such as light jazz lovers.

While sheltering intellectuals is a great strength of Public Radio, it is also a great weakness -- because Public Radio, at least with its current orientation, ends up avoiding the kind of programming that MOST Americans WANT to hear. Unfortunately, most "private sector" radio stations are ALSO avoiding the kind of programming that most Americans want -- such as 200 songs a day, instead of 20 songs played 10 times each. Meanwhile, Low Power is positioned, and motivated, to meet needs that both Public Radio AND conventional radio ignore.

For the most part, Low Power Radio cannot duplicate what Public Radio does. On the other hand, Public Radio has so far shown no inclination to duplicate what Low Power Radio does.

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## **THE NAB'S ALLEGATIONS OF INTERFERENCE**

For obvious reasons, a recent NAB study on radio interference cannot be ignored. The NAB's study contains quantifies PROJECTIONS of radio interference which the NAB claims will result -- or at least MIGHT result -- from establishment of a Low Power Radio Service.

In light of conflicting information, the accuracy of the study's findings are open to question.

EQUALLY open to question, however, is the conclusion the NAB has drawn from the study's findings. Even if the accuracy of these findings is accepted for the sake of argument, the data do not support the NAB's plea for total inaction on Low Power Radio.

## **Good News For Car Radios**

We begin by noting the NAB study finds no serious risk of interference with car radios. We commend the NAB for not attempting to "bury" this finding.

As the Commission is well aware, drivers constitute a large and important segment of the nation's total radio listenership. On page 10 of Volume Three of its August 2, 1999 Written Comments, the NAB says THIS about car radios:

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It was also decided that, because the test results for automobile receivers showed them to perform somewhat better than the existing Commission protection ratios assume, and because this meant that any interference areas applicable to automobile receivers would be wholly contained within the interference areas predicted when using the existing Commission protection ratios, and because the objective of this study is to determine the impact that relaxing the existing Commission protection ratios would have, there would be no point in plotting the interference areas for automobile receivers.

### **Reasons To Question The NAB Study's Accuracy**

There are at least 2 MAJOR REASONS to question the accuracy of the NAB's interference study.

FIRST, the basic finding of the NAB's study -- that is, a risk of significant interference in SOME metropolitan areas -- is inconsistent with the findings of other recent interference studies. Indeed, its findings are virtually OPPOSITE to those reported in a recent study by the Media Access Project (MAP), the Committee for Democratic Communications of the National Lawyers' Guild (CDC), the Micro-Empowerment Coalition (MEC) and others. The NAB study's finding of significant potential interference is ALSO contradicted by the FCC's own technical study of the interference question, which finds no significant interference problems (although the FCC does note that its sample for the study is less than the optimal size).



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SECOND, the basic finding of the NAB's study is contradicted by "real world" experience. In that "real world", UNlicensed broadcasters -- many of them located in urban areas -- have been transmitting with UNregulated equipment for decades. A good number of these unlicensed broadcasters have "gone dark" this year -- as a gesture of good faith, in response to issuance of a Proposed Rule in FCC Docket MM 99-25. Others have remained on the air.

In any event, despite the absence of either FCC licensing or FCC regulation of equipment, most recent "busts" of unlicensed broadcasters have NOT been based on complaints of interference. They have been based instead on a policy of enforcing "the letter of the law" -- even when no has suffered any demonstrable injury as a result of the violation. In the law of torts -- such as lawsuits based on claims of negligence -- it is unlikely a judge would award damages for a legal violation which did no harm: a plaintiff without an injury would not get very far.

The FCC's need to rely on a strictly LEGALISTIC rationale speaks, with silent eloquence, of the absence of any PRACTICAL rationale for enforcing the current ban on Low Power Radio.

If Low Power Radio could TRULY cause the levels of interference the NAB's study projects for SOME metropolitan areas, more of the actual "busts" in these areas would be based on actual EVIDENCE of interference.

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### **“Unscrambling” The NAB’s Study**

Some aspects of the NAB’s methodology must be noted in order to place this study in context.

FIRST, the NAB’s study covers 60 different metropolitan areas. However, according to the PLACES RATED ALMANAC FIFTH EDITION by David Savageau and Geoffrey Loftus (the source for all of the population data in these Reply Comments), there are 323 Standard Metropolitan Statistical Areas in the United States (plus 28 more in Canada). Thus, for every SMSA the NAB examined in its study, there are more than 4 which were not examined.

In addition, the U.S.A. has “miles and miles of miles and miles”: stretches which are not part of any SMSA, where a quarter of our people still live.

We do not make this point as a criticism of the NAB. Given limited time and competing demands for resources, a study of 323 SMSAs (plus our vast rural areas) could hardly be expected. It is still worth bearing in mind, however, that nine tenths of the iceberg remains unseen.

SECOND, speaking of metropolitan areas, the NAB’s study analyzes potential interference across ENTIRE METROPOLITAN AREAS. However, findings are then grouped by the population size of the CENTRAL CITY involved.

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Specifically, METROPOLITAN AREA results are placed in one of 3 groups: CENTRAL CITIES with over 500,000 people ... CENTRAL CITIES with 200,000 to 500,000 people ... and CENTRAL CITIES with fewer than 200,000 people.

A mid-sized metropolitan area may appear in the Upper Third grouping if its central city accounts for a relatively large portion of the total metropolitan area population. Nashville (# 30 in U.S. metropolitan area population) is an example.

A large metropolitan area may fall into the Middle Third grouping if a fairly large portion of the total metropolitan population lives in the suburbs and/or adjoining cities. Atlanta (#8 in U.S. metropolitan area population) is an example.

To avoid this problem, the Charts in these Reply Comments list the areas studied in order of the POPULATION RANK of their METROPOLITAN AREAS. A ranking in order of population DENSITY would have been even more helpful, but information on land area -- a necessary part of population density calculations -- could be found only for individual cities, not for SMSAs.

THIRD, the POPULATION numbers must be understood clearly. For example, if the study predicts 10,000 potentially affected people in a given area, this does not mean that 10,000 people will definitely encounter interference. It means that 10,000 people LIVE IN AREA where they MIGHT be affected by interference IF each of them owns a radio of a TYPE which is supposedly vulnerable. Most often, this is a "Boombox": least often, a home stereo radio.

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It is vital to grasp this point -- in order to make a mental adjustment for the inherent over-counting in the NAB's estimates.

Our understanding of the study is this: Depending upon the nature of each projected "interference zone", 100 people may live in an area where only interference with "Boomboxes" is predicted. ALL of these people are counted in the "portable radio" column. However, if only 10 of these people ACTUALLY OWN a "Boombox", then only 10 of these 100 people are ACTUALLY at risk for interference. Indeed, even if clock/personal radios and home stereo radios are ALSO affected in this area, ALONG WITH the portable radios, some people who own only CAR radios will still be unaffected.

To its credit, the NAB acknowledges this limitation of its study. In fact, the NAB has AVOIDED totalling the projected interference numbers across the various categories. "Combining the columns" would have caused even more over-counting, as owners of multiple radios were counted once for the first kind of radio that might be affected, then twice for the second kind of radio that might be affected and so on.

Still, as noted above, the data ITSELF -- even when it is NOT combined with data for other radio categories -- is inevitably distorted by including people who do not own a radio of a type which is supposedly affected.

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Of course, it is doubtful whether even the well-funded NAB has the resources to isolate all individual radio owners from the overall data stream. This appears to be an inherent limitation -- not an avoidable one.

Nevertheless, the limitation exists. The FCC should be aware of it -- and sensitive to it. For one thing, the FCC should take care NOT to combine the NAB's population numbers for different radio categories. As for the "in-category" population numbers, the FCC should review them with the knowledge that they represent THE MAXIMUM POSSIBLE NUMBER of people who MIGHT be affected IF: (a) the projected interference actually occurs; AND (b) every resident who lives in the interference zone actually owns a radio of the type which is vulnerable to such interference.

FOURTH, the study examines the projected interference levels from both LP-100 stations and LP-1000 stations. However, THE AMHERST ALLIANCE has strongly urged that: (a) LP-1000s should be licensed only in areas where population density is 1,000 people per square mile or less; AND (b) LP-250s, a "transitional" Tier recommended by Amherst and others, should be licensed only in areas where population density is 1,500 people per square mile or less.

Using these criteria, it is doubtful LP-1000s could be licensed in most of the areas studied (although many might qualify for LP-250s). Given this situation, plus the absence of data on LP-250s, our Charts analyze only LP-100 data.

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FIFTH, of the 60 SMSAs studied by the NAB, 4 -- New York City, Salt Lake City, San Jose and Flagstaff -- should not be "averaged in" with the rest of the sample.

The New York SMSA, accounting for roughly a twelfth of the total 60-area population, has zero interference ONLY because it has zero Low Power Radio stations. Including New York's zero projected interference in the total sample pulls the AVERAGE projected interference level downward -- inaccurately.

The other 3 SMSAs -- Salt Lake City, San Jose and Flagstaff -- are at the other end of the interference spectrum, with projected interference levels far above the average. Needless to say, this is NOT why they should be excluded!! They should be excluded because the data is suspect.

In these 3 metropolitan areas, Tables 7 and 9 of the NAB's Volume Three report, an identical number of people live in each of 4 different zones where interference might be a problem. For example, in metro Salt Lake City, exactly 828,533 people live in places where clock radios and personal radios might be affected -- and exactly 828,533 people live in places where "Boomboxes" might be affected. Precisely the same number appears in the study's two other radio categories as well. Such consistency seems highly improbable and suggests some kind of an error may have been made. San Jose and Flagstaff should be excluded from the sample for the same reason.

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In the Charts included in and with these Reply Comments, we have utilized a 56-area sample -- which excludes the 4 referenced cities -- for purposes of analysis. At the end of each Chart, however, we indicate how the overall averages would change if the original 60-area sample were used instead.

### **“Hot Spots”, “Cool Spots” and “Temperate Zones”**

The NAB's interference projections span a huge range of peaks and valleys. This is apparent from the absolute numbers of people whom the NAB claims might be affected by interference from Low Power Radio. For example, in the case of clock/personal radios -- a “middle” type of radio, which is neither the least affected type (home stereo radios) nor the most affected type (“Boomboxes”) -- the absolute numbers in a 56-area sample range from 706,234 in the Las Vegas SMSA to 3,571 in the Raleigh SMSA.

However, although these numbers convey some sense of the ranges in the NAB study, more is visible when absolute numbers are placed in a larger context.

Consider metro Las Vegas, for example. The impact of this single area on the 56-area AVERAGE is profound. With a total population of 1,174,000 -- compared to a total of 98,730,000 people in all 56 areas -- the Las Vegas SMSA constitutes roughly 1% of the total sample. At the same time, it accounts for 12% of the total projected clock/personal radio interference.

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Las Vegas is a "hot spot". It is NOT the only one.

Now consider Raleigh. The NAB estimates that only 3,571 Raleigh residents live in zones where clock/personal radios might encounter interference.

Like metro Las Vegas, metro Raleigh accounts for roughly 1% of the roughly 99 million people in the relevant 56 areas. However, while Las Vegas accounts for 12% of the projected interference with clock/personal radios, Raleigh accounts for LESS THAN ONE TENTH OF ONE PERCENT of the total projected interference in this category. (The actual number is 3,571 divided by 6,101,000 -- or .0005853%.)

Raleigh is a "cool spot". It is NOT the only one.

The entire 56-area sample is, in fact, a pattern of "hot spots" and "cool spots" -- accented by a smaller number of "temperate zones", where the percentage of the total 56-area population is at least somewhat proportional to the percentage of total projected interference.

In our analysis, we looked at ALL 4 of the radio categories in the study, not just the "mid-vulnerability" clock/personal radios.

Based on the total range of data, we classified an area as a "Hot Spot" IF:

- (a) the percentage of the total projected interference exceeds
- (b) the percentage of the total 56-area population
- (c) by a ratio of AT LEAST 2-1
- (d) in AT LEAST 2 of the 4 radio categories



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Using the same range of data, we classified an area as a "Cool Spot" IF:

- (a) the percentage of the total 56-area population exceeds
- (b) the percentage of the total projected interference
- (c) by a ratio of AT LEAST 2-1
- (d) in AT LEAST 2 of the 4 radio categories

Areas which did not meet EITHER set of criteria were classified as  
"Temperate Zones".

With the 56-area sample -- which we prefer, for the reasons we have  
stated -- there are:

24 "COOL SPOTS"  
19 "HOT SPOTS"  
13 "TEMPERATE ZONES"

With the NAB's original sample of 60 areas, there are:

25 "COOL SPOTS"  
22 "HOT SPOTS"  
13 "TEMPERATE ZONES"

"Hot Spots" are examined in more detail in our Appendix.

For now, here is a list of the areas in each category. The Commission  
may be surprised to see which areas are -- or aren't!! -- "hot spots".

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(SMSA population, in rounded thousands, follows each Area)

**"HOT SPOTS"**

Minneapolis 2,792  
Phoenix 2,637  
Columbus (OH) 1,491  
Las Vegas 1,174  
Oklahoma City 1,022  
Louisville 995  
Albuquerque 705  
Omaha 675  
Springfield (MA) 576  
Little Rock 559  
Des Moines 428  
Santa Barbara 390  
Boise 370  
Trenton 332  
Montgomery 313  
Midland/Odessa 243  
Manchester (NH) 179  
Greenville (NC) 125  
LaCrosse 125

TOTAL "HOT SPOT" POPULATION:  
15,444  
(15% of 56-Area Sample)

IF USING A 60-AREA SAMPLE, ADD:

San Jose 1,612  
Salt Lake City 1,258  
Flagstaff 117

TOTAL "HOT SPOT" POPULATION:  
18,431  
(17% of 60-Area Sample)

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(SMSA Population, in rounded thousands, follows each Area)

**"COOL SPOTS"**

Los Angeles 9,206  
Chicago 7,750  
Washington, DC 4,643  
Detroit 4,355  
Houston 3,853  
Atlanta 3,531  
Boston 3,247  
Dallas 3,047  
San Diego 2,797  
St. Louis 2,585  
Baltimore 2,534  
Pittsburgh 2,411  
Miami 2,060  
Denver 1,906  
Kansas City 1,679  
San Francisco 1,665  
Orlando 1,520  
Indianapolis 1,513  
Charlotte 1,330  
Raleigh 1,055  
Jacksonville 1,033  
Baton Rouge 577  
Wichita 518  
Spokane 398

TOTAL "COOL SPOT" POPULATION:

65,213

(66% of 56-Area Sample)

IF USING A 60-AREA SAMPLE, ADD:

New York City 8,592

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TOTAL "COOL SPOT" POPULATION:  
73,805  
(67% of 60-Area Sample)

**"TEMPERATE ZONES"**

(SMSA Population, in rounded thousands, follows each Area)

Philadelphia 5,025  
Cleveland 2,249  
Cincinnati 1,625  
San Antonio 1,504  
Milwaukee 1,466  
Manchester (CT)/Hartford 1,148

Nashville 1,132 \*

Grand Rapids 1,033  
Richmond 953  
Tucson 788  
Harrisburg 627  
Mobile 524  
Peoria 327

TOTAL "TEMPERATE ZONE" POPULATION:  
18,401  
(19% of 56-Area Sample)  
(17% of 60-Area Sample)

\* NASHVILLE is highlighted because it has the most perfectly proportioned balance between share of population and share of projected interference.

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19 Hot Spots constitute 15% of the total 56-area population. Yet they generate 74% of the projected "FCC ratios" interference ... 60% of the projected clock/personal radio interference ... 56% of the projected portable radio interference ... and 67% of the projected home stereo interference.

In comparison, 24 Cool Spots account for 66% of the total 56-area population. Yet they generate less than 6% of the projected "FCC ratios" interference ... less than 12% of the projected clock/personal radio interference ... less than 18% of the projected portable radio interference ... and less than 11% of the projected home stereo interference.

For every American in the 56-area sample who lives in a Hot Spot, where serious interference is projected by the NAB, there are almost 6 who live in a Cool Spot or a Temperate Zone.

One is reminded of the old question:

Is the glass half empty or half full?

In this case, by one possible standard of measurement, the glass is one seventh empty and six sevenths full.

Yet the NAB is insisting, or at least implying, that the glass is 100% empty. It asserts that ALL Low Power Radio stations should be banned because SOME of them, in a distinct MINORITY of the cases, MAY pose problems.

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As it has done throughout these proceedings, the NAB implies -- or, more precisely, ASSUMES -- that a significant risk of interference ANYWHERE justifies a ban on Low Power Radio EVERYWHERE. This implied assertion is neither logical nor reasonable.

We could use the same logic to argue that ALL Low Power Radio stations should be licensed because the NAB's own study indicates that MOST of them, in a distinct MAJORITY of the cases, are WILL NOT pose problems.

This position is, frankly, no more absurd than the NAB's current logic.

If one "follows the data" carefully, the reasonable course of action is obvious:

FIRST, the FCC should determine whether or not the NAB data is credible. (We have provided 2 major reasons for suspecting it is not.)

SECOND, if the FCC decides that the NAB data is credible, or MAY BE credible, or may be credible in part, it should attempt to understand WHY the Hot Spots are hot -- AND why the Cool Spots are cool. Both halves of the equation are important.

THIRD, the FCC should proceed with establishment of a Low Power Radio Service -- BUT it should structure the Service in ways which take local conditions clearly into account.

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### CONCLUSION

For the reasons set forth herein, we urge the FCC to reject the unsubstantiated objections of some -- and proceed forward, expeditiously, with establishment of a viable AND meaningful Low Power Radio Service.

Respectfully submitted,



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Dated: \_\_\_\_\_

9-15-99

September 15, 1999

We certify that a copy of these Reply Comments has been  
sent  
To all parties who sent copies of their Written Comments to  
us.

**APPENDIX:  
"HOT SPOTS"  
IN THE NAB'S INTERFERENCE STUDY**

Only the NAB's projections for **LP-100 stations** are considered.  
Columns do not add to 100% because all numbers are **rounded**.

\* Of the 4 classes of possible radio interference cited by the NAB, we chose  
**Clock/Personal Radios**. This is the **"mid-range" category**,  
averaging 21% LESS projected interference than the Portable Radio category  
and 9% MORE projected interference than the Home Stereo category.

The NAB found that **Car Radios** will not be affected by Low Power Radio.

	% of Total 56-Area Population	% Of Total 56-Area Projected Interference *	RATIO: Share Of Proj. Inter. To Share Of Pop.
1. Minneapolis	3%	6%	2-1
2. Phoenix	3%	9%	3-1
3. Columbus (OH)	1%	2%	2-1
4. Las Vegas	1%	12%	12-1
5. Oklahoma City	1%	2%	2-1
6. Louisville	1%	2%	2-1
7. Albuquerque	.7%	9%	13-1
8. Omaha	.7%	3%	4-1
9. Springfield (MA)	.6%	2%	3-1
10. Little Rock	.6%	1%	< 2-1
11. Des Moines	.4%	2%	5-1
12. Santa Barbara	.4%	3%	8-1
13. Boise	.4%	8%	8-1
14. Trenton	.3%	5%	17-1
15. Montgomery	.3%	1%	3-1
16. Midland/Odessa	.2%	.5%	3-1



17. Manchester (NH)	.2%	.5%	3-1
18. Greenville (NC)	.1%	.2%	2-1
19. LaCrosse	.1%	1%	10-1
56-AREA TOTALS	15.0%	60.3%	4-1

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**APPENDIX: PAGE 2**

IF A 60-AREA SAMPLE IS USED, ADJUST AS  
FOLLOWS:

The 19 Hot Spots Above	14.0%	79.3%	6-1
20. San Jose	1.4%	9.9%	7-1
21. Salt Lake City	1.1%	10.8%	10-1
22. Flagstaff	.01%	.7%	70-1
60-AREA TOTALS	16.8%	100.7%	6-1

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9/15/99